



# FUNCTIONAL SKILLS MATHEMATICS

AQA | Edexcel | City & Guilds | Open Awards | NCFE | Highfield

Entry Level 3

## Capacity

### Materials

- You **cannot** use a calculator for **questions** with this symbol.



### Instructions

- Answer **all** questions.
- Answer questions on separate paper.

### Information and Advice

- The marks for each question are shown in brackets – use this as a guide on how long to spend on each question.
- Read each question carefully before you answer it.
- Check you answers.



**Q1** Convert these measurements of capacity from millilitres (ml) to litres (L).

**1(a)** 3000 ml [1 mark]

**1(b)** 5000 ml [1 mark]

**1(c)** 4200 ml [1 mark]

**1(d)** 2600 ml [1 mark]

**1(e)** 900 ml [1 mark]

**1(f)** 160 ml [1 mark]

**1(g)** 8844 ml [1 mark]

**1(h)** 20126 ml [1 mark]

**1(i)** 15 ml [1 mark]

**1(j)** 124 ml [1 mark]



**Q2** Convert these measurements of capacity from litres (L) to millilitres (ml).

**2(a)** 6 L [1 mark]

**2(b)** 2 L [1 mark]

**2(c)** 4.4 L [1 mark]

**2(d)** 3.18 L [1 mark]

**2(e)** 0.266 L [1 mark]

**2(f)** 0.9 L [1 mark]

**2(g)** 3.144 L [1 mark]

**2(h)** 8.197 L [1 mark]

**2(i)** 0.003 L [1 mark]

**2(j)** 0.158 L [1 mark]



**Q3** Tom is looking to buy a new car. He can pick from several options:

- A - Tayata Yuri
- B - Rembogino V12
- C - Raver Impman
- D - Aldo Vorsprung
- E - Citerus Dali

**3(a)** Tom wants a car with a 50 L or greater petrol tank. Below are the capacities of the petrol tanks of the five cars.

- A - Tayata Yuri – 52 L
- B - Rembogino V12 – 28 L
- C - Raver Impman – 34 L
- D - Aldo Vorsprung – 54 L
- E - Citerus Dali – 58 L

Which cars could Tom buy?

**[2 marks]**

**3(b)** Tom has found that the largest cups that can fit in the driver's seat cupholders of the cars have the following capacities:

- A - Tayata Yuri – 250 ml
- B - Rembogino V12 – 330 ml
- C - Raver Impman – 568 ml
- D - Aldo Vorsprung – 500 ml
- E - Citerus Dali – 400 ml

Tom wants a car that can hold a 400 ml cup or greater. Which cars could Tom buy?

**[2 marks]**

**3(c)** Tom wants a car with an engine capacity of at least 2 L. Listed are the engine capacities of each car. Which cars could Tom buy?

- A - Tayata Yuri – 3.2 L
- B - Rembogino V12 – 2.0 L
- C - Raver Impman – 1.8 L
- D - Aldo Vorsprung – 2.2 L
- E - Citerus Dali – 1.9 L

**[2 marks]**

**3(d)** Only one car meets all of Tom's requirements. By using your answers to 3(a), 3(b) and 3(c), recommend a car for Tom to buy.

**[1 mark]**



**Q4** Jenny is given a voucher that entitles her to a free drink. She can choose one drink out of the following five:  
Cola – 400 ml - Cold  
Flavoured Water – 500 ml - Cold  
Still water – 750 ml - Cold  
Coffee – 330 ml - Hot  
Tea – 250 ml - Hot

**4(a)** Put these drinks in order from smallest to largest.

**[2 marks]**

**4(b)** Jenny wants to order a drink that is larger than 360 ml. Can she order a hot drink?

**[2 marks]**



**Q5** A group of friends on a health drive are comparing how much water they have consumed in a day. They find the following:  
Abdul – 2.1 L  
Belle – 3.3 L  
Caitlin – 1.6 L  
Don – 2.4 L  
Esme – 1.8 L  
Friedrich – 2.9 L

**5(a)** Which friend has consumed the most, and which friend has consumed the least?

**[1 marks]**

**5(b)** Esme says “I read that you need to consume at least 2 litres a day to be healthy.” Under this definition, which friends are healthy?

**[2 marks]**

**Q6** Add these capacities in millilitres (ml).

**6(a)** 300 ml + 400 ml

[1 mark]

**6(b)** 200 ml + 600 ml

[1 mark]

**6(c)** 150 ml + 550 ml

[1 mark]

**6(d)** 120 ml + 150 ml

[1 mark]

**6(e)** 133 ml + 54 ml

[1 mark]

**6(f)** 16 ml + 10 ml

[1 mark]

**6(g)** 996 ml + 334 ml

[1 mark]

**6(h)** 1028 ml + 1663 ml

[1 mark]

**6(i)** 901 ml + 2287 ml

[1 mark]

**6(j)** 20157 ml + 33112 ml

[1 mark]

**Q7** Add these capacities in litres (L).

**7(a)**  $3 \text{ L} + 4 \text{ L}$

[1 mark]

**7(b)**  $2 \text{ L} + 8 \text{ L}$

[1 mark]

**7(c)**  $9 \text{ L} + 28 \text{ L}$

[1 mark]

**7(d)**  $0.4 \text{ L} + 0.2 \text{ L}$

[1 mark]

**7(e)**  $0.3 \text{ L} + 0.8 \text{ L}$

[1 mark]

**7(f)**  $0.16 \text{ L} + 0.11 \text{ L}$

[1 mark]

**7(g)**  $0.029 \text{ L} + 0.034 \text{ L}$

[1 mark]

**7(h)**  $0.164 \text{ L} + 0.1 \text{ L}$

[1 mark]

**7(i)**  $0.004 \text{ L} + 0.005 \text{ L}$

[1 mark]

**7(j)**  $1023 \text{ L} + 29114 \text{ L}$

[1 mark]



**Q8** Misa wants to buy a barrel to be part of her home brewery. She wants to be able to store 20 pints of beer at any one time. Which of the following four barrels can she buy?

- A – 21 pints
- B – 18 pints
- C – 9 pints
- D – 24 pints

**[2 marks]**

**Q9** A group's order at a local coffee shop has the following drinks on it:

- Medium mocha (hot drink) – 450 ml
- Bottle of cola (cold drink) – 500 ml
- Extra large hot chocolate (hot drink) – 1000 ml
- Large bottle of still water (cold drink) – 750 ml
- Strawberry lemonade (cold drink) – 300 ml
- Small tea (hot drink) – 250 ml

**9(a)** The small tea and the strawberry lemonade are for the same person. What is the total capacity of the drinks they have ordered?

**[2 marks]**

**9(b)** What is the total capacity of all of the cold drinks on the order?

**[2 marks]**

**9(c)** What is the total capacity of all of the hot drinks on the order?

**[2 marks]**

**9(d)** What is the total capacity of all of the drinks on the order?

**[2 marks]**



**Q10** Ellie has a 2000 ml bottle of cola. She is pouring glasses for herself and two friends. She has three glasses, all of different sizes:

A – 568 ml

B – 500 ml

C – 330 ml

**10(a)** Ellie pours herself a glass first. She uses glass B. How much is left in the bottle?

**[2 marks]**

**10(b)** Ellie then pours her two friends a glass each, using glasses A and C. How much is left in the bottle now?

**[2 marks]**

**10(c)** Ellie wants a refill. Is there enough drink left in the bottle for her to fill her glass? If so, how much will be left once she has taken her refill?

**[2 marks]**



**Q11** Russell has 50 flower pots, each of capacity 2.4 L. He wishes to buy compost to fill them up. Compost is brought in bags of 10 L. He buys 11 bags.

**11(a)** What is the capacity of all of the flower pots combined?

**[2 marks]**

**11(b)** What is the total capacity of the purchased compost?

**[2 marks]**

**11(c)** Does Russell have enough compost to fill all of his flower pots? Explain your answer.

**[2 marks]**

**Q12** A pub sells the following amount of each drink per month:  
Strongberg's Extra Special Lager – 360 L  
House Brew – 54 L  
Cherry Cola – 126 L  
Fenland Coffee – 36 L  
Drinks are sold to the pub in barrels, which are 18 L each.  
How many barrels of each drink should the pub buy each month?

**[4 marks]**



**Q13** In each of the pairs below, select the largest capacity.

**13(a)** 4 L and 2000 ml

**[2 marks]**

**13(b)** 3000 ml and 6 L

**[2 marks]**

**13(c)** 0.4 L and 500 ml

**[2 marks]**

**13(d)** 0.02 L and 30 ml

**[2 marks]**

**13(e)** 6 ml and 0.034 L

**[2 marks]**

**13(f)** 6274 ml and 6.252 L

**[2 marks]**

**13(g)** 23.12 L and 23346 ml

**[2 marks]**

**13(h)** 24 ml and 0.026 L

**[2 marks]**



**Q14** Five different milk bottles are available at the supermarket:

- A – 568 ml
- B – 1136 ml
- C – 1 L
- D – 3.048 L
- E – 1500 ml

**14(a)** Which milk bottle is the largest? Which is the smallest?

**[3 marks]**

**14(b)** Given that B, C and E all cost the same price, which one is best value for money?

**[2 marks]**

**Q15** Add together these capacities:

**15(a)** 400 ml + 0.5 L

**[2 marks]**

**15(b)** 2000 ml + 3 L

**[2 marks]**

**15(c)** 38 ml + 0.052 L

**[2 marks]**

**15(d)** 0.114 L + 52 ml

**[2 marks]**

**15(e)** 24300 ml + 18.177 L

**[2 marks]**

**15(f)** 388 ml + 0.156 L + 211 ml

**[2 marks]**

**Q16** Nine different bottles of water are for sale at a supermarket.

- A – 0.5 L
- B – 400 ml
- C – 330 ml
- D – 0.25 L
- E – 5 L
- F – 2000 ml
- G – 568 ml
- H – 1 L
- I – 750 ml

**16(a)** Add together the capacities of E and G.

[2 marks]

**16(b)** Add together the capacities of A, D, F and I

[2 marks]

**16(c)** Add together the capacities of the largest bottle and the smallest bottle.

[3 marks]

**16(d)** Add the capacities of all of the bottles of water.

[2 marks]



**Q17** Sofia has three containers. Container A has a capacity of 1.5 L and is half full. Container B has capacity 2 L and is one quarter full. Container C has capacity 900 ml and is one third full.

**17(a)** How much is in each container? Give your answers in millilitres.

[3 marks]

**17(b)** One third of the liquid in container A is poured into container C. How much is now in container C?

[2 marks]

**17(c)** Half of the liquid now in container C is poured into container B. How much is now in container B? Give your answer in litres.

[3 marks]